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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,246	12/03/2003	Nigel V. Spurr	H0005898	5403

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EXAMINER

LUGO, CARLOS

ART UNIT	PAPER NUMBER
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3676

DATE MAILED: 02/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/727,246

Applicant(s)

SPURR ET AL.

Examiner

Carlos Lugo

Art Unit

3676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the motor, as claimed in claims 1, 11 and 21, and the plurality of sensors collecting data from the gear, as claimed in claims 8 and 18, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 7,9 and 12 are objected to because of the following informalities:

- Claim 7, change “further comprising the step of calibrating via said vehicle management module at least” to -further comprising the step of calibrating, via a vehicle management module, at least-.
- Claim 9 Line 3, change “said plurality” to -a plurality-.
- Claim 12 Line 1, change “comprises” to -is-.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

- The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-21 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The claims recites the limitation “that via the data collected a calibration of the latch assembly will be performed. However, the current specification does not provide a clear explanation of how that calibration is performed by the collected data and what parts of the latch assembly are calibrated.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

- The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

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6. **Claim 3 is rejected** under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites, "The method of claim 1 wherein said latch assembly comprises a vehicle door latch assembly". However, it is unclear what is the method step presented in this claim. Therefore, in order to continue with the examination, the claim will be examined as, "The method of claim 1, further comprising the step of providing the latch assembly in a vehicle door".

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1,3-7,10,11,13-17,20 and 21 are rejected** under 35 U.S.C. 102(b) as being anticipated by US Pat No 5,765,884 to Armbruster.

Regarding claims 1 and 11, Armbruster discloses a latch assembly control system comprising a latch assembly (Figure 1) with a motor (53) having at least one gear (26) for actuating a plurality of components of the latch assembly.

The latch assembly is associated with a gear tooth sensor (37) that senses a position of at least one gear to thereby provide a reference point registration and calibration via the collected data (Col. 5 Line 27 to Col. 6 Line 5).

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As to the limitation that the gear will complete less than one revolution to obtain the data, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the claimed quantitative value, since it has been held that discovering an optimum value of a result effective variable such as to obtain the values in a faster time involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

As to claims 3 and 13, Armbruster discloses that the latch assembly is a vehicle door latch assembly.

As to claims 4 and 14, Armbruster discloses that the gear tooth sensor is integrated with the latch assembly (Figure 1).

As to claims 5, 15 and 21, Armbruster discloses that the system further includes a vehicle management module (35).

As to claims 6 and 16, Armbruster discloses that the sensor will communicate data recollected from the gear.

As to claims 7 and 17, Armbruster discloses that the calibration is made by the vehicle management module (Col. 5 line 58 to Col. 6 Line 5).

As to claims 10 and 20, Armbruster discloses that at least one component of the door latch assembly is actuated by the vehicle management module based on data collected from the at least one gear tooth sensor.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 2 and 12 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,765,884 to Armbruster as applied to claims 1 and 11 above, and further in view of US Pat No 5,304,926 to Wu.

Armbruster fails to disclose that the gear tooth sensor comprises at least one magnet located proximate to the gear. Armbruster discloses that the sensor used is a Hall-effect sensor (Claim 1).

Wu teaches that it is well known in the art to have a Hall sensor wherein the sensor has a magnet located proximate a gear in order to collect data (Figure 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a sensor with a magnet, as taught by Wu, into a device as described by Armbruster, in order to collect data from the gear.

11. **Claims 8,9,18 and 19 are rejected** under 35 U.S.C. 103(a) as being unpatentable over US Pat No 5,765,884 to Armbruster.

Armbruster fails to disclose a plurality of gear tooth sensors to collect data from the gear.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than one sensor in a device as Armbruster disclose in order to obtain more accurate data.

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Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number is 703-305-9747. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 703-308-2686. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

C.L.

Carlos Lugo
AU 3676

February 4, 2005.



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600